

APPENDIX

A Declaration Under Rule 132 of Peter LISEC is
attached.



PATENTS
Docket No. 4301-1060

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Peter LISEC

Conf. 9161

Serial No. 09/850,064

GROUP 1733

Filed May 8, 2001

Examiner Jeff H. AFTERGUT

PROCESS FOR JOINING HOLLOW
SECTION STRIPS BY WELDING

DECLARATION UNDER RULE 132

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

I, Peter LISEC, the named inventor of the above-identified U.S. patent application, am a citizen of Austria, residing at Bahnhofstrasse 34, Amstetten-Hausmening, Austria, declare that I a master glazier with 30 years of experience in the development and manufacture of insulating glass. I am also experienced in the machines and plants that are used to produce insulating glass including the manufacture of spacers for insulating glass.

I have been performing research on the material properties of spacers made of hollow metal strips and the welding technology used to produce such spacers since 1985. I am presently the managing director of two companies (Lisec Maschinenbau GmbH and Glastechnische Industrie Peter Lisec, Gesellschaft m.b.H.). Both of these companies are engaged in the manufacture of insulating glass including spacers and machine/plants for manufacturing insulating glass.

I am familiar with the above-identified U.S. patent

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application and with the Examiner's position with respect to German Patent No. DE 3634793, European Patent Applications EP0 546 854 and EP0 662 389, PCT WO 88/06966 and U.S. Patent No. 5,080,727, which have been applied against the above-identified U.S. patent application.

A summary of the Examiner's position with respect to the references is as follows: Figure 3 of DE 3634793 shows a welding method wherein two plastic members are welded together. A notch is cut out of part of each of the two members so that the part of the member having the notch will incur very little weld material so that a small bump exists. EP0 546 854 has a similar teaching and as noted, the position set forth by the Examiner is that there may not be any weld material such that there is no bump. EP0 662 389 and WO 88/06966 also teach welding plastic members to minimize bead formation.

However, as noted in the interview summary from the February 3, 2004 interview, the above-noted references are directed to welding plastic materials that may exhibit different weld characteristics than metal welding. The examiner's position with respect to these teachings and the metal of the present invention is that the reference to Lemelson U.S. Patent No. 3,779,446 teaches that welding techniques may be used for both metal and plastics. As set forth below, the position set forth by the Examiner is untenable.

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The method of the present invention is related to welding metal profile bars during the manufacture of spacer frames for insulating glass panes. As seen in Figure 2 of the invention, for example, an edge is formed on a surface of opposing metal bars where an insulating glass pane is to be placed. A spacer 9 placed into the hollow between the two metal bars prevents the metal from going to the inside of the metal bars, when the metal bars are welded together. The excess metal material thus flows to the outside where the edges are not formed.

According to the invention, the welding continues until the edges meet such that there is a flat surface on the exterior surface where the insulating glass pane will be placed and the exterior surface opposite where the insulating glass will be placed will accrue all of the excess metal material, without any metal material going on the inside surface due to the spacer 9.

In contrast, as disclosed on page 4, lines 51-56 of the most pertinent reference, EP0 546 854, a majority of the plastic of the tubular members will move to where the cut 6 is and a small portion will move to the outside to form bead 8. This major portion will continue to fill the cut until the abutting pressure is stopped. Accordingly, if the abutting pressure is stopped when the inside bead 9 is level with the wall surface, the inside bead 9 will have a height of 0. However, if the abutting pressure is continued until the edges

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of the cut meet, then there will be a significant inside bead 9.

EPO 662 389 at column 2, lines 16-21 also teach the bead filling the groove. In this reference applying abutting pressure until the edges meet would also result in an unwanted internal bead.

WO 88/06966 uses complementary undercuts to avoid softened material from entering the inner space of the parts that are welded together. The teaching of this reference is similar to that of the European references.

DE 3634793 teaches a bump 9 in Figure 3. Since this reference also uses plastic members, the undercuts 20 would also be filled in during welding and prevention of the bump 9 would entail stopping the welding before the edges meet.


Lemelson teaches various welding techniques. However, these techniques are related to cold pressure welding and friction welding wherein members are rotated as they are pressed together. As set forth above, when using butt welding wherein the members to be joined together are heated before welding, plastics and metal behave differently. Accordingly, the teachings of Lemelson would not be applicable to butt welding the metal profile bars of the present invention.

Because of the above-noted differences in the metal and plastics during the butt welding procedure, the methods of the cited references would not lead one of ordinary skill in the art to practice those methods on the metal frames of the

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present invention to render obvious the claims of the present invention.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Declarant's signature  Date 07. April 04
(Peter LISEC)